Teaching Nutrition through Math, Science, Language Arts and Health Enhancement Grade Level: First

- Lesson Time: 30 Minutes
- Integrated Core Subjects: Science, Health Enhancement
- Montana Content Standard: Science 3: Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.
- Montana Content Standard: Health Enhancement 1 & 7: Students have a basic knowledge and understanding of concepts that promote comprehensive health; students demonstrate health-enhancing behaviors.
- Objectives: Students will understand the importance of daily physical activity for a healthy heart, and discover that the heart is a muscle and how it responds to physical activity.

Lesson/Activity

- 1. Have students tighten a muscle in their arm and feel it. Ask the students to try to name another muscle in their body that they can't see that starts with the letter "H," the answer being the "heart!" Explain that our heart is also a muscle that pumps blood and oxygen throughout our body so we have energy to think, move and play. A muscle produces movement by contracting or relaxing. Show this movement by tightening your fist (contracting) and extending out your fingers (relaxing). Have the students do the same movements with one of their hands.
- 2. Ask the students for a reason why physical activity is good for the heart. Explain to the students that muscles become stronger and bigger when they are used, and that it is very important to do physical activity each day that makes our heart work to keep it strong and healthy. The type of physical activity that is recommended to keep our hearts healthy are ones that make our hearts beat faster and we work up a sweat. Ask a student to name one physical activity that can help keep our hearts healthy by making it beat faster.
- 3. Have the students put their hand over their heart (like they would for the Pledge of Allegiance) and ask if they can feel their heart beating. Ask them if they think it is beating slow or fast.
- 4. Ask students to raise their hand if they would like to act out an activity that helps the heart stay strong. Activities could be basketball, running, jumping rope, skiing, jumping jacks, playing tennis, etc. Have the others follow along to do the activity. After a few students share activities, have kids remain standing and lead them in a few more healthy heart activities. Ask the students to make a prediction on what their hearts will do when they are doing the physical activities.
- 5. As a class, do a short warm up by having the students walk in place for three minutes. Encourage the students to go at their own pace and have them do 20 jumping jacks, 30 jump rope in place (no rope), and then count to 40 while running in place.

Materials Needed

• A copy of the *Healthy* Heart Activities work sheet for each student.





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- 6. Now have the kids put their hand over their hearts and ask what they feel. The heart will be beating faster because their hearts are working to pump blood to their muscles. Ask the children what are other signs that they are experiencing that shows their heart is getting a workout. Examples of answers include sweating or breathing changes. Have the students cool down by doing some slow walking in place for about three minutes.
- 7. Explain that children need to be physically active every day for 60 minutes to keep their hearts strong and healthy. This can be broken up into smaller amounts, like 15-minutes of recess time or 30 minutes during health enhancement. Ask the students what some of the other benefits are for being physically active. Answers could be to feel good or have fun.
- 8. Hand out the *Heart Healthy Activities* work sheet and have students complete it. Review it with them and ensure that they have six activities circled. The following activities should not be circled: sitting in the chair, standing, and watching TV.
- 9. Ask each student to write or draw an activity on the bottom of the work sheet that they could do today to keep their heart healthy.

Outcome Goals

Students will be able to identify the heart as a muscle and which activities are heart healthy.

Students will plan one heart healthy activity to do that day.

Extending the Lesson

- Review with the students that what we eat affects how our heart works. Ask the students what type of foods they predict will keep their hearts healthy.
- Explain to them that choosing low-fat dairy or meats (low-fat milk, non-breaded meats), non-fried foods (baked potato instead of French fries), whole grains, and lots of fruits and vegetables help keep our hearts healthy.
- Have pictures of food if possible for children to view or use the *MyPyramid for Kids* poster. Explain that heart healthy foods (low-fat diary, fruits, vegetables, grains, lean meats) are foods that should be eaten "everyday" and that other foods (like desserts, chips, fries, candy) are considered "sometime" foods and should be eaten once in a while. Using the *Healthy Heart Foods* work sheet, ask the students to plan hearthealthy meals. Ask the students to give the reason for choosing the foods for each meal? This activity can be done as a class or in small groups. See the *Healthy Heart* answer key for answers.

Eat Smart Be Smart

Acknowledgments/Adapted From

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